

AMENDMENTS IN THE CLAIMS

1. (previously presented) An array of cells for an electrophoretic display wherein each of said cells comprises:

- (a) surrounding partition walls,
- (b) an electrophoretic composition filled therein, and
- (c) a polymeric sealing layer which is formed from a sealing composition having a specific gravity lower than that of said electrophoretic composition and sealingly adheres to the surface of the partition walls to enclose said electrophoretic composition within each cell.

2. (previously presented) The cells of Claim 1 wherein said electrophoretic composition comprises charged particles dispersed in a dielectric solvent or solvent mixture.

3. (previously presented) The cells of Claim 1 which are driven by an electric field.

4. (previously presented) The cells of Claim 1 wherein said sealing composition comprises a material selected from a group consisting of polyvalent acrylate or methacrylate, cyanoacrylates, polyvalent vinyl, polyvalent epoxide, polyvalent isocyanate, polyvalent allyl, and oligomers or polymers containing cross linkable functional groups.

5. (previously presented) The cells of Claim 4 wherein said sealing composition further comprises a polymer or oligomer.

6. (previously presented) The cells of Claim 5 wherein said polymer or oligomer is soluble or dispersible in said composition.

7. (previously presented) The cells of Claim 4 wherein said sealing composition further comprises an additive.

8. (previously presented) An electrophoretic display comprising:

- a) one top electrode plate and one bottom electrode plate, at least one of which is transparent; and
- b) a plurality of cells enclosed between the two electrodes, each of said cells comprises:

- (i) surrounding partition walls,
- (ii) an electrophoretic composition filled therein, and
- (iii) a polymeric sealing layer which is formed from a sealing composition

having a specific gravity lower than that of said electrophoretic composition and sealingly adheres to the surface of the partition walls to enclose said electrophoretic composition within each cell.

9. (previously presented) The display of Claim 8 in which both said top electrode plate and sealing layer are transparent.

10. (previously presented) The display of Claim 9 wherein said top electrode plate is adhered to the sealing layer.

11. (cancelled)

12. (previously presented) The display of Claim 8 wherein said sealing composition comprises a material selected from a group consisting of polyvalent acrylate or methacrylate, cyanoacrylates, polyvalent vinyl, polyvalent epoxide, polyvalent isocyanate, polyvalent allyl, and oligomers or polymers containing crosslinkable functional groups.

13. (previously presented) The display of Claim 10 wherein said adhesion is through an adhesive layer formed from a pressure sensitive adhesive, a hot melt adhesive, a heat, moisture or radiation curable adhesive.

14. (previously presented) The display of Claim 13 wherein said sealing and adhesive layers are formed from different materials.

15. (previously presented) The display of Claim 13 wherein said sealing and adhesive layers are formed from the same material.

16. (original) The display of Claim 15 wherein said material is a radiation curable material.

17. (original) The display of Claim 8 in which the bottom electrode plate on the opposite side of the sealing layer is the viewing side, whereby said bottom electrode plate is transparent.

18. (previously presented) The display of Claim 17 wherein said top electrode plate is

adhered to the sealing layer.

19. (previously presented) The display of Claim 18 wherein said adhesion is through an adhesive layer formed from a pressure sensitive adhesive, a hot melt adhesive, a heat, moisture or radiation curable adhesive.

20. (previously presented) The display of Claim 19 wherein said sealing and adhesive layers are formed from different materials.

21. (previously presented) The display of Claim 19 wherein said sealing and adhesive layers are formed from the same material.

22. (original) The display of Claim 21 wherein said material is a radiation curable material.

23-25. (cancelled)

26-31. (cancelled)

32. (previously presented) The electrophoretic display of Claim 8 wherein said cells are substantially uniform in size and shape.

33. (previously presented) The electrophoretic display of Claim 8 wherein said cells are of different sizes and shapes.

34. (previously presented) The electrophoretic display of Claim 8 wherein said cells are non-spherical.

35. (previously presented) The electrophoretic display of Claim 8 wherein the cells are formed from microcups with an opening having a circular, polygonal, hexagonal, rectangular or square shape.

36. (previously presented) The electrophoretic display of Claim 8 wherein the cells have an opening area ranging from about 10^2 to about $5 \times 10^5 \mu\text{m}^2$.

37. (previously presented) The electrophoretic display of Claim 36 wherein the cells have an opening area ranging from about 10^3 to about $5 \times 10^4 \mu\text{m}^2$.

38. (previously presented) The electrophoretic display of Claim 8 wherein the cells

have a depth in the range from about 3 to about 100 microns.

39. (previously presented) The electrophoretic display of Claim 38 wherein the cells have a depth in the range from about 10 to about 50 microns.

40. (previously presented) The electrophoretic display of Claim 8 wherein the cells are formed from microcaps have an opening to wall ratio in the range from about 0.05 to about 100.

41. (previously presented) The electrophoretic display of Claim 40 wherein the cells are formed from microcaps have an opening to wall ratio in the range from about 0.4 to about 20.

42. (previously presented) The cells of Claim 2 wherein said electrophoretic composition comprises charged white particles dispersed in a colored dielectric solvent or solvent mixture.

43. (previously presented) The cells of Claim 42 wherein said dielectric solvent or solvent mixture is colored by a dye or pigment.

44. (previously presented) The cells of Claim 43 wherein said dye or color pigment is uncharged or has a charge polarity different from that of the white pigment particles.

45. (previously presented) The electrophoretic display of Claim 8 wherein said sealing composition is a UV curable composition.

46. (previously presented) The electrophoretic display of Claim 8 wherein said sealing composition comprises a thermoplastic or thermoset precursor.

47. (previously presented) The cells of Claim 1 wherein said sealing composition is a UV curable composition.

48. (previously presented) The cells of Claim 1 wherein said sealing composition comprises a thermoplastic or thermoset precursor.

49. (previously presented) The cells of Claim 2 wherein said sealing composition is immiscible or incompatible with said dielectric solvent.

50. (cancelled)

51. (previously presented) The electrophoretic display of Claim 8 wherein said sealing

composition is dissolved or dispersed in an organic solvent that is incompatible or immiscible with the electrophoretic composition.

52-53. (cancelled)

54. (previously presented) The electrophoretic display of Claim 8 wherein said electrophoretic composition is partially filled in each of said cells.

55. (previously presented) The electrophoretic display of Claim 54 wherein said partially filled electrophoretic fluid is in contact with said polymeric sealing layer.

56. (previously presented) The cells of Claim 4 wherein said polyvalent vinyl is vinylbenzene, vinylsilane or vinylether.

57. (previously presented) The cells of Claim 12 wherein said polyvalent vinyl is vinylbenzene, vinylsilane or vinylether.